|  | Application No.  | Applicant(s)   |       |
|--|--|--|-------|
| A  | 10/591,446   | SHIMIZU ET AL.   |       |
| Notice of Allowability   | Examiner   | Art Unit   |       |
|  | DUC C. HO  | 2465   |       |
| The MAILING DATE of this communication appe<br>All claims being allowable, PROSECUTION ON THE MERITS IS<br>herewith (or previously mailed), a Notice of Allowance (PTOL-85)<br>NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI<br>of the Office or upon petition by the applicant. See 37 CFR 1.313 | (OR REMAINS) CLOSED in this<br>or other appropriate communica<br>GHTS. This application is subje | application. If not included tion will be mailed in due course |       |
| 1. This communication is responsive to the preliminary amend   | dment filed 06-26-2007.  |  |       |
| 2. The allowed claim(s) is/are 22-23, 26, 29-31, 24, 27, 25, 28  | 8, 33-40, 42, 41. Renumbered 1-  | 20, respectively.  |       |
| 3. ☐ Acknowledgment is made of a claim for foreign priority una) ☐ All b) ☐ Some* c) ☐ None of the:  | nder 35 U.S.C. § 119(a)-(d) or (f)   |  |       |
| 1. Certified copies of the priority documents have   | been received.   |  |       |
| 2. Certified copies of the priority documents have   | been received in Application No  | )  |       |
| 3. Copies of the certified copies of the priority do   | cuments have been received in t  | his national stage application fro                             | m the |
| International Bureau (PCT Rule 17.2(a)).   |  |  |       |
| * Certified copies not received:   |  |  |       |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  |  | ply complying with the requireme                               | ents  |
| 4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give  |  |  | OF    |
| 5. CORRECTED DRAWINGS ( as "replacement sheets") mus   | t be submitted.  |  |       |
| (a) ☐ including changes required by the Notice of Draftspers   | on's Patent Drawing Review (P  | TO-948) attached   |       |
| 1) ☐ hereto or 2) ☐ to Paper No./Mail Date   |  |  |       |
| (b) ☐ including changes required by the attached Examiner's<br>Paper No./Mail Date   | s Amendment / Comment or in the  | ne Office action of  |       |
| Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t   |  |  | of    |
| 6. DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT   |  |  | e     |
|  |  |  |       |
| Attachment(s) 1. ☑ Notice of References Cited (PTO-892)  | 5. ☐ Notice of Inform  | al Patent Application  |       |
| 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)   | 6. ☑ Interview Summ  | • •  |       |
| 3. ☑ Information Disclosure Statements (PTO/SB/08),  |  | Date <u>04-22-2010</u> .                                       |       |
| Paper No./Mail Date <u>01-23-2009</u> ; <u>09-01-2006</u> 4.  Examiner's Comment Regarding Requirement for Deposit of Biological Material  | 8. 🛛 Examiner's Stat   | ement of Reasons for Allowance                                 |       |
| o. Diological material   | 9.   |  |       |
|  |  |  |       |
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## **EXAMINER 'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR
 To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jason Rhodes on 04-22-2010.

The application has been amended as follows:

In the claims:

Claim 32 is canceled.

Claim 22, line 11, after "MAC frame", insert ---,

the edge switch snoops a neighbor solicitation IP packet, and replaces the real MAC address of the source set in the MAC frame including the neighbor solicitation IP packet and the real MAC address of the source set in the neighbor solicitation IP packet with corresponding temporary MAC addresses, respectively, when the terminal transmits the neighbor solicitation IP packet, and

the edge switch snoops a neighbor advertisement IP packet, and replaces the real MAC address of the source set in the MAC frame including the neighbor advertisement IP packet and a target real MAC address set in the neighbor advertisement IP packet with corresponding temporary MAC addresses, respectively, when receiving the neighbor advertisement IP packet from the terminal ---.

Claim 37, line 10, after "MAC address", insert ---, wherein

the edge switch snoops a neighbor solicitation IP packet, and replaces the real MAC address of the source set in the MAC frame including the neighbor solicitation IP packet and the real MAC address of the source set in the neighbor solicitation IP packet with corresponding temporary MAC addresses, respectively, when the terminal transmits the neighbor solicitation IP packet, and

the edge switch snoops a neighbor advertisement IP packet, and replaces the real MAC address of the source set in the MAC frame including the neighbor advertisement IP packet and a target real MAC address set in the neighbor advertisement IP packet with corresponding temporary MAC addresses, respectively, when receiving the neighbor advertisement IP packet from the terminal ---.

## Reason for Allowance

2. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 22-31, and 33-42, the prior art fails to teach or suggest a layer 2 switch network system that includes a terminal, comprising a plurality of layer 2 switches including an edge switch, wherein the edge switch snoops a neighbor solicitation IP packet, and replaces the real MAC address of the source set in the MAC frame including the neighbor solicitation IP packet and the real MAC address of the source set in the neighbor solicitation IP packet with corresponding temporary MAC addresses, respectively, when the terminal transmits the neighbor solicitation IP packet, and the edge switch snoops a neighbor advertisement IP packet, and replaces the real MAC address of the source set in the MAC frame including the neighbor

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advertisement IP packet and a target real MAC address set in the neighbor advertisement IP packet with corresponding temporary MAC addresses, respectively, when receiving the neighbor advertisement IP packet from the terminal, in combination with other limitations, as specified in the independent claims 22 and 37.

- 3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
- 4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Thursday from 7:30 am to 6:00 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel, can be reached on (571) 272-2988.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Patent Examiner

/DUC C HO/

Primary Examiner, Art Unit 2465

04-22-2010